Application No.: 10/722,176 Docket No.: UMY-059

## **AMENDMENTS TO THE CLAIMS**

## 1-13. (**Canceled**)

14. (Currently amended) A An siRNA delivery mixture comprising a dendrimer and a nucleic acid capable of mediating RNA interference (RNAi).

## 15-16. (Canceled)

- 17. (New) The delivery mixture of claim 14, wherein the nucleic acid comprises a nucleotide sequence that encodes an RNA precursor capable of mediating RNAi.
- 18. (New) The delivery mixture of claim 17, wherein the nucleotide sequence that encodes an RNA precursor capable of mediating RNAi is operably linked to a polymerase III promoter.
- 19. (New) The delivery mixture of claim 14, wherein the nucleic acid is an RNA molecule.
- 20. (New) The delivery mixture of claim 19, wherein the RNA molecule is selected from the group consisting of a small interfering RNA (siRNA), micro-RNA (miRNA) and short hairpin RNA (shRNA).
- 21. (New) The delivery mixture of claim 20, wherein the RNA molecule is miRNA.
- 22. (New) The delivery mixture of claim 20, wherein the RNA molecule is shRNA
- 23. (New) The delivery mixture of claim 20, wherein the RNA molecule is siRNA.
- 24. (New) The delivery mixture of claim 23, wherein the siRNA comprises a sense strand and an antisense strand, wherein the antisense strand has a sequence sufficiently complementary to a target mRNA sequence to direct target-specific RNAi.
- 25. (New) The delivery mixture of claim 24, wherein the sense strand and antisense strand are crosslinked.

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26. (New) The delivery mixture of claim 25, wherein the siRNA contains a single crosslink.

- 27. (New) The delivery mixture of claim 25, wherein the sense strand and antisense strand are psoralen crosslinked.
- 28. (New) The delivery mixture of claim 24, wherein the siRNA comprises a modification at the 3' OH terminus of the sense strand or antisense strand.
- 29. (New) The delivery mixture of claim 28, wherein the modification at the 3' OH terminus is selected from the group consisting of biotin, a peptide, a nanoparticle, a peptidomimetic and a dendrimer.
- 30. (New) The delivery mixture of claim 28, wherein the modification at the 3' OH terminus is photocleavable biotin.
- 31. (New) The delivery mixture of claim 28, wherein the modification at the 3' OH terminus is a dendrimer.
- 32. (New) The delivery mixture of claim 31, wherein the dendrimer is PAMAM.
- 33. (New) The delivery mixture of any one of claims 23-32, wherein the siRNA is between about 16 and 30 nucleotides in length.
- 34. (New) The delivery mixture of any one of claims 23-32, wherein the siRNA is about 21 nucleotides in length.
- 35. (New) The delivery mixture of any one of claims 24-34, wherein the antisense and sense strands are aligned such that the siRNA has 3' overhangs of between 1 and 4 nucleotides.

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36. (New) The delivery mixture of claim 35, wherein the siRNA has 2-nucleotide 3' overhangs.

- 37. (New) The delivery mixture of claim 36, wherein the 2-nucleotide 3' overhangs are dTdT or UU.
- 38. (New) The delivery mixture of claim 14, wherein the dendrimer is selected from the group consisting of PAMAM, diaminobutane (DAB) and polyethylene glycol (PEG).
- 39. (New) The delivery mixture of claim 38, wherein the dendrimer is PAMAM
- 40. (New) The delivery mixture of claim 39, wherein the PAMAM and siRNA are present at a PAMAM:siRNA ratio of between about 10 μg and about 1mg of PAMAM per 100 pmol siRNA.
- 41. (New) The delivery mixture of claim 39, wherein the PAMAM and siRNA are present at a PAMAM:siRNA ratio of between about 20  $\mu$ g and about 40  $\mu$ g PAMAM per 100 pmol siRNA.
- 42. (New) The delivery mixture of claim 39, wherein the PAMAM and siRNA are present at a PAMAM:siRNA ratio of about 40 μg PAMAM per 100 pmol siRNA.